

Amendments to the Specification

Please amend the previously filed paragraph spanning from page 8, line 8 to page 9, line 22 as set forth as follows:

Thus, while the foregoing body of prior art indicates it to be well known to use a matrix array of pairs of electrodes for a well plate which includes a matrix array of wells, the prior art described above does not teach or suggest a multiple electrode pair array which has a two-dimensional matrix array of electrode conductors and which has the following combination of desirable features: (1) provides an electroporation apparatus that considerably reduces the complexity with respect to 192 first or second electrode conductors and the complexity with respect to the electronic apparatus needed to drive 192 first or second electrode conductors for a 96 well plate used for electroporation; (2) provides an electroporation apparatus in which the number of conductors connected with electrodes for electroporation is considerably less than the number of electrodes; (3) provides an electroporation apparatus in which 384 electrode pairs in all 384 wells in a 384 well plate can be treated with a different electrical modality; (4) provides an electroporation apparatus in which all pairs of electrodes in all wells in a well plate can be treated with a different electrical modality without the need for a pair of electrical conductors for each electrode pair; (5) provides an electroporation apparatus in which multiple electrodes are not disposed of when a multiple well plate is disposed of; (6) provides an electroporation apparatus in which simple, plastic disposable multi-well plates can be employed and disposed of readily; (7) provides a support for electrodes that are placed in the wells of a standard well plate wherein the electrode support allows access to the wells when the electrodes are positioned in the wells; and (8) provides that pairs of rectangular electrodes are placed into the rectangular wells of a [mult-well] multi-well plate so that the rectangular electrodes closely fit against adjacent walls of the wells. The foregoing desired characteristics are provided by the unique multiple electrode pair array of the present invention as will be made apparent from the following description thereof. Other advantages of the present invention over the prior art also will be rendered evident.

Please amend the previously filed paragraph on page 16 spanning from line 3 to line 8 as set forth as follows:

Yet another object of the present invention is to provide a multiple electrode pair array that provides that pairs of rectangular electrodes are placed into the rectangular wells of a [mult-well] multi-well plate so that the rectangular electrodes closely fit against adjacent walls of the wells.

Please amend the previously filed paragraph spanning from page 18, line 5 to page 19, line 2 as set forth as follows:

The multiple electrode pair array apparatus 10 is provided for use with a multiple well plate 11 which has multiple wells distributed in a two-dimensional matrix array which has R rows and C columns. The multiple electrode pair array apparatus 10 includes a non-conductive base member 12. An array of pairs of electrodes 93 are attached to the base member 12 and project therefrom. The pairs of [electodes] electrodes are distributed on the base member 12 in a two-dimensional matrix array which has R rows 16 and C columns 18 to enable registration with the two-dimensional matrix array of wells. Each pair of electrodes includes a respective first electrode 20 and a respective second electrode 22. An array of R row conductors 24 are attached to the non-conductive base member 12, wherein each row conductor 24 is electrically connected to corresponding first electrodes 20 in a corresponding row of first electrodes 20. An array of C column conductors 26 are attached to the non-conductive base member 12. The C column conductors 26 are oriented perpendicular to the R row conductors 24. Each column conductor 26 is electrically insulated from the row conductors 24, and each column conductor 26 is electrically connected to corresponding second electrodes 22 in a corresponding column of second electrodes 22.

Please amend the previously filed paragraph spanning from page 28, lines 22-27 as set forth as follows:

One embodiment of the multiple electrode pair array of the invention can be used with separate standard disposable rectangular well 96 well microplates such as made by Innovative Microplate, Chicopee, Massachusetts, USA, particularly, Microplate Model S30012.

Please amend the previously filed paragraph spanning from page 29, line 1-4 as set forth as follows:

Walters et al  
Ser. No. 10/694,345

The 96 pairs of rectangular electrodes which fit into the respective 96 wells of the separate microplate are rectangular electrodes made by Keystone, specifically Keystone Part No. 1289, without holes.